UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BRUCE ALAN GRUBER
and FRANK VITO DISTEFANO

Appeal No. 2006-1506
Application No. 10/858,576

ON BRIEF

Before WALTZ, KRATZ and TIMM, Administrative Patent Judges.
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-6.

BACKGROUND

Appellants' invention relates to a pressure-sensitive adhesive containing an acrylate polymer produced by emulsion polymerization in the presence of a styrene-containing polymer seed latex. The seed latex is itself formed by emulsion polymerization. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

> 1. In a pressure-sensitive adhesive comprised of emulsion polymerized units of (a) from 60 to 95 percent by weight of at least one C_{6-12} alkyl acrylate; (b) from 0 to 10 percent by weight of ethylenically unsaturated compounds having a glass transition temperature of above 0°C and contain no functional group other than an ethylenically unsaturated groups (c) from 0 to 10 percent by weight of ethylenically unsaturated compound having at least one acid or acid anhydride group; and (d) from 0 to 20 percent by weight of further ethylenically unsaturated compounds, weight percentages based on the total weight of polymer, the improvement which comprises forming said pressure-sensitive adhesive by emulsion polymerization in the presence of a styrene containing polymer seed latex, said styrene containing polymer latex formed by emulsion polymerization.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Yang	5,013,784	May 07, 1991
Lu et al. (Lu)	6,048,611	Apr. 11, 2000

Claims 1-6 stand rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Yang or Lu.

We refer to the brief and reply brief and to the answer for a complete exposition of the opposing viewpoints expressed by appellants and the examiner concerning the issues before us on this appeal.

OPINION

Having carefully considered each of appellants' arguments set forth in the brief and reply brief, appellants have not persuaded us of reversible error on the part of the examiner. Accordingly, we will affirm the examiner's rejections for substantially the reasons set forth by the examiner in the answer. We add the following for emphasis.

Appellants argue the rejected claims as a group. Thus, we select independent claim 1 as the representative claim on which we shall decide this appeal.

A review of representative claim 1 reveals that the claimed adhesive product is defined, at least in part, by the method of making same; that is, in a product-by-process format. The patentability of such a claim is determined based on the product itself, not on the method of making it. See In re Thorpe, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) ("If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process.").

We agree with appellants (reply brief, page 2) that the Jepson claimed format employed is not an admission by appellants that the here claimed product is an admitted prior art product.

However, we agree with the examiner that Lu and Yang each disclose and/or suggest a pressure-sensitive adhesive that reasonably appear to be embraced by products falling within the scope of representative claim 1 for reasons substantially as set forth at pages 3 through 7 of the answer. In this regard, Lu (see, e.g., column 2, line 65 through column 5, line 9 and Examples 2 and 4-6) teaches a latex pressure-sensitive adhesive formed via emulsion polymerization using, inter alia, an alkyl acrylate monomer, such as 2-ethylhexyl acrylate, and a polystyrene as part of the reactant mixture. Similarly, Yang (column 2, line 50 through column 5, line 5) discloses latex pressure-sensitive adhesives prepared from a reaction mixture of alkyl acrylate monomers of the claimed type in the presence of a styrene-containing resin. Given the above and for reasons stated in the answer, we agree with the examiner's anticipation and obviousness determinations.

Starting with the examiner's obviousness rejection alternative, we note that appellants (brief, pages 5-7) do not contest the examiner's determination that the applied teachings of Lu or Yang establish a prima facie case of obviousness for the

claimed subject matter.[1] Rather, appellants focus on alleged unexpected results for the claimed subject matter in arguing against the obviousness determination of the examiner.

Appellants maintain that the specification Examples 1 and 2 establish unexpected results for the claimed adhesive product over the adhesive products of the applied references. We note that the question as to whether unexpected advantages have been demonstrated is a factual question. In re Johnson, 747 F.2d 1456, 1460, 223 USPQ 1260, 1263 (Fed. Cir. 1984). It is incumbent upon appellants to supply the factual basis to rebut the prima facie case of obviousness established by the examiner. See, *e.g.*, In re Klosak, 455 F.2d 1077, 1080, 173 USPQ 14, 16 (CCPA 1972). Appellants, however, do not provide an adequate

[1] While the issues to be resolved in a § 102/§ 103 rejection of a product-by-process claim are generally considered to be substantially the same and often resolved together (see, e.g., In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977); In re Brown, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972)); here, appellants have separately argued the anticipation and obviousness issues in the brief. Moreover, appellants have not presented any arguments contesting the presentation of a prima facie case of obviousness. Thus, we consider the obviousness and anticipation rejections separately in this appeal. In this regard, arguments that could have been made but were not presented in the briefs are deemed to be waived. See 37 CFR § 41.37(c)(1)(vii).

factual basis and explanation regarding same, that is referred to in the briefs, to support a conclusion of unexpected advantages.

In particular, appellants have not established that the test results presented in the specification represent unexpected results since the furnished test results are not reasonably commensurate in scope with the here claimed invention. We note that representative claim 1 is not limited to an adhesive product that is made using the procedure outlined in Example 2 of the specification, including an initial charge of polystyrene seed latex and an adhesive formulation as specified in the tables presented on page 9 of the specification, and further including the specific reaction conditions and other materials set forth in making the adhesive product of that Example as evident by a comparison of representative claim 1 with specification Example 2. Thus, it is apparent that appellants' evidence is considerably more narrow in scope than representative appealed claim 1, as maintained by the examiner in the answer (page 7). See In re Dill, 604 F.2d 1356, 1361, 202 USPQ 805, 808 (CCPA 1979).

Nor have appellants satisfied their burden of explaining how the results reported for Example 2 can be extrapolated therefrom

so as to be reasonably guaranteed as attainable through practicing the invention as broadly claimed.

Also, appellants (brief, page 6) have not shown that the comparison Example 1, which is seemingly argued as being equivalent to the adhesive of the applied references and the control of the test comparisons Tables 1-5 (specification, pages 10-13) were prepared under conditions that fairly represents the closest prior art. Also, it is not clear how a fair comparison can be made considering the numerous unfixed variables involved in those tests, such as differences in the adhesive formulation monomers and emulsifier composition, as well as reaction techniques and conditions as pointed out by the examiner in the answer (paragraph bridging pages 7 and 8) and as further made evident by a review of the specification Examples.

Indeed, at page 13 of the specification, it is stated that:

> The preferred example shows some differentiation from the latex blend and is more like the PSA control. As in Table 3, addition of a tackifying resin to the 20% blend will improve peel on LDPE and corrugated, Table 5. In fact, the performance of the example 2 latex compares favorably with both the tackified blend and a tackified general purpose commercial label adhesive, Table 5.

Consequently, we are not satisfied that appellants have satisfied the burden of establishing that the evidence of record

that is offered for comparison, as discussed in the briefs, demonstrates results that are truly unexpected and commensurate in scope with representative claim 1.

Hence, we conclude that the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art, on this record.

Concerning the examiner's anticipation rejection, we note that when the appellants' product and that of the prior art appear to be identical or substantially identical, as here, the burden shifts to the appellants to provide evidence that the prior art product does not necessarily or inherently possess the relied-upon characteristics of the appellants' claimed product. See In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980); In re Fessmann, 489 F.2d 742, 745, 180 USPQ 324, 326 (CCPA 1974). The reason is that the Patent and Trademark Office (PTO) is not able to manufacture and compare products. See In re Best, 562 F.2d at 1255, 195 USPQ at 434; In re Brown, 459 F.2d at 535, 173 USPQ at 688 (CCPA 1972).

Concerning appellants' burden of furnishing evidence to show a patentable product distinction, appellants maintain that:

> In Applicant's pressure-sensitive adhesive, one can visualize the structural characteristics, and therefore the differences, between a polymer formed in the

> presence of an insoluble polystyrene seed latex and one formed wherein the polymer is soluble in the polymer mix. In Applicant's polymerization employing an insoluble polymer seed, the seed latex provides a "core" over which a polymeric shell is formed. On the other hand a polymer formed in the presence of solution polymerized polystyrene, as was done in Yang, cannot provide a "core" and thus there can be no shell because the solution polymerized polymer is soluble in the monomer mix. Structurally, then it would be rather apparent to a polymer chemist that the polymers would be substantially different and, therefore, would not have identical properties. Also, a polymer formed in the presence of a hydrophobic resin, as in Lu et al., would be expected to result in a product in which the hydrophobic resin is separate from the polymer formed from acrylate and vinyl monomers.

However, that argumentation of counsel in the briefs is not fairly substantiated with evidence so as to satisfy appellants' burden to show that the representative product-by process claim 1 actually describes a different product than described in the applied prior art.

To the extent appellants are arguing that representative claim 1 is limited to a core/shell polymer based on the process limitations recited therein and is structurally distinct from the products taught by the applied references, we agree with the examiner (answer, pages 6 and 7) that appellants have not substantiated that argument with persuasive evidence on this record. In this regard, we note that representative claim 1 does not explicitly require a core/shell product structure. Nor have

appellants fairly evinced that the presence of a polystyrene seed latex during emulsion polymerization necessarily results in such a structure.

Moreover, the different properties for the claimed product that appellants assert is established by Examples 1 and 2 and Tables 2-4 of the specification is not persuasive in that Example 2 has not been demonstrated as being commensurate in scope with representative claim 1 and alleged comparison Example 1 has not been established as fairly representing the products described in each of the applied references for reasons as set forth above and in the answer. Moreover, multiple unfixed variables exist in the comparison as a review of Examples 1 and 2 of the specification readily makes clear, as further discussed above and in the answer. Concerning this matter, appellants, not the Board, have the burden of coming forward with evidence, including ferreting out particular facts (e.g., data) from the specification, which may support appellants' position. This appellants have not accomplished by the general references to the specification Examples and Tables in the brief (paragraph bridging pages 4 and 5). Here, appellants simply have not met the requisite burden to show that the process limitations of representative product-by-

process claim 1 actually result in a different product for reasons set forth herein and in the answer.

In sum, the examiner has proffered a reasonable explanation in the answer as to why a core/shell polymer is not required by representative product-by-process claim 1 and as to why the applied references reasonably would have been expected to result in structurally indistinct products from those embraced by representative claim 1 that has not been fairly rebutted by appellants.

It follows that we shall sustain the examiner's rejections on this record.

CONCLUSION

The decision of the examiner to reject claims 1-6 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Yang or Lu is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

THOMAS A. WALTZ Administrative Patent Judge	)
PETER F. KRATZ Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
CATHERINE TIMM Administrative Patent Judge	)

PFK/sld

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